WHAT IS CLAIMED IS:

1. A rolling method for a strip rolling mill, the strip rolling mill including a pair of upper and lower work rolls for rolling a strip, intermediate rolls for supporting each of the paired work rolls, and back-up rolls for supporting each of the intermediate rolls, wherein each of the work rolls is provided with a tapered portion near one end thereof and the tapered portions of the work rolls are arranged on opposite sides of roll bodies thereof with respect to roll axis directions, the rolling method comprising the steps of:

when a material with a constant width is being rolled, setting axial positions of the work rolls at desired positions and changing axial positions of the intermediate rolls to control a thickness distribution in a width direction of the material being rolled.

2. The rolling method according to claim 1, wherein the control of the distribution in the width direction of the material is to mainly control a thickness distribution near widthwise edges of the material.

3. The rolling method according to claim 1, wherein the desired axial positions of the work rolls are such that start points of the tapered portions of the work rolls come within a width of the strip.

4. The rolling method according to claim 1, wherein at least portions of the work rolls at start

points of the tapered portions are formed in arc.

5. The rolling method according to claim 1, wherein the desired axial positions of the work rolls are changed according to a change in a width of the material being rolled.

6. The rolling method according to claim 1, wherein a reversible rolling is performed by reversing a rolling direction.

7. The rolling method according to claim 1, wherein the axial positions of the work rolls are set so that an average of an actual edge drop value and a target edge drop value in at least one coil being rolled almost agree.

8. The rolling method according to claim 1, wherein the axial positions of the intermediate rolls are controlled based on a difference between an actual edge drop value and a target edge drop value in at least one coil being rolled.

9. A rolling method for a strip rolling mill, the strip rolling mill including a pair of upper and lower work rolls, and a drive mechanism for moving the work rolls in roll axis directions, the rolling method comprising the steps of:

providing at least one control means for controlling a thickness distribution in a width direction of a material being rolled, and

when the material with a constant width is being rolled, setting axial positions of the work rolls

at desired positions and controlling a thickness distribution in a width direction of the material by the control means.

10. The rolling method according to claim 9, wherein a vicinity to one end of each of the work rolls is formed into a tapered portion or formed with an annular recess.

11. The rolling method according to claim 9, wherein the control means for controlling the thickness distribution in a width direction of the material comprises at least one of means for axially moving intermediate rolls each formed with a tapered portion or an annular recess at a vicinity to one end thereof, or formed with an S-shaped roll crown, means for applying a bender force to the work rolls, means for applying a bender force to the intermediate rolls, means for using a thermal crown of the work rolls, means for crossing at least one of pairs of rolls, and means for changing a rolling load or draft.

12. The rolling method according to claim 9, wherein axial positions of the work rolls are set so that an average of an actual edge drop value and a target edge drop value in at least one coil being rolled almost agree.

13. The rolling method according to claim 9, wherein the thickness distribution in the width direction of the material is controlled based on a difference between an actual edge drop value and a

target edge drop value in at least one coil being rolled.

14. A rolling method for a strip rolling mill, the strip rolling mill including a pair of upper and lower work rolls for rolling a strip, intermediate rolls for supporting each of the paired work rolls, and back-up rolls for supporting each of the intermediate rolls, wherein each of the work rolls is provided with a tapered portion at a vicinity to one end thereof, the tapered portions of the work rolls are arranged on opposite sides of roll bodies thereof with respect to roll axis directions, each of the intermediate rolls is provided with a tapered portion at a vicinity to one end thereof, the tapered portions of the intermediate rolls are each arranged on a side opposite, with respect to a roll axis direction, to the tapered portion of the associated work roll in contact therewith, the rolling method comprising the steps of:

when the material with a constant width is being rolled, setting axial positions of the work rolls at desired positions and changing axial positions of the intermediate rolls to control a distribution in a width direction of the material being rolled.

15. A rolling method for a strip rolling mill, the strip rolling mill including a pair of upper and lower work rolls for rolling a strip, intermediate rolls for supporting each of the paired work rolls, and back-up rolls for supporting each of the intermediate

rolls, wherein each of the work rolls is provided with a tapered portion at a vicinity to one end thereof, the tapered portions of the work rolls are arranged on opposite sides of roll bodies thereof with respect to roll axis directions, each of the intermediate rolls is provided with a tapered portion at a vicinity to one end thereof, and the tapered portion of one work roll and the tapered portion of one intermediate roll are arranged on opposite sides of roll bodies thereof with respect to roll axis directions on the same upper side as well as on the same lower side, the rolling method comprising the steps of:

when the material with a constant width is being rolled, setting axial positions of the work rolls at desired positions and changing axial positions of the intermediate rolls to control a distribution in a width direction of the material being rolled.

16. A rolling method for a strip rolling mill, the strip rolling mill including a pair of upper and lower work rolls for rolling a strip, intermediate rolls for supporting each of the paired work rolls, and back-up rolls for supporting each of the intermediate rolls, wherein each of the work rolls is provided with a tapered portion at a vicinity to one end thereof and tapered portions of the work rolls are arranged on opposite sides of roll bodies thereof with respect to roll axis directions thereof, the rolling method comprising the steps of:

when the material with a constant width is being rolled, setting axial positions of the work rolls at desired positions by a work roll axial position setting mechanism and changing axial positions of the intermediate rolls by an intermediate roll axial position moving mechanism to control a distribution in a width direction of the material being rolled.

17. A strip rolling facility comprising:

a pair of work rolls each having a roll outline shape at vicinities to one ends of roll bodies thereof, the roll outline shape having a tapered portion decreasing in diameter toward the roll end, the tapered portions of the work rolls being arranged on opposite sides of the roll bodies with respect to roll axis directions;

a moving mechanism for moving the work rolls in the roll axis directions; and

an axial position setting mechanism for setting axial positions of the work rolls at desired positions when a material with a constant width is being rolled.

18. A strip rolling facility comprising:

a moving mechanism for moving work rolls in roll axis directions;

an axial position setting mechanism for setting axial positions of the work rolls at desired positions when a material with a constant width is being rolled; and

control means for controlling a thickness distribution in a width direction of the material.

19. A strip rolling facility comprising:

a moving mechanism for moving work rolls in roll axis directions;

an axial position setting mechanism for setting axial positions of the work rolls at desired positions when a material with a constant width is being rolled;

means for measuring or estimating a thickness distribution in a width direction of the material; and

control means for controlling the thickness distribution in the width direction of the material in such a way as to reduce a difference between a target thickness distribution in the width direction of the material and the measured or estimated thickness distribution in the width direction of the material.

20. A strip rolling facility comprising:

a pair of work rolls each having a roll outline shape at vicinities to one ends of roll bodies thereof, the roll outline shape having a tapered portion decreasing in diameter toward the roll end, the tapered portions of the work rolls being arranged on opposite sides of the roll bodies with respect to roll axis directions;

a pair of intermediate rolls for supporting the pair of work rolls;

a pair of back-up rolls for supporting the

pair of intermediate rolls;

a moving mechanism for moving the work rolls in the roll axis directions;

an axial position setting mechanism for setting axial positions of the work rolls at desired positions when a material with a constant width is being rolled.

a moving mechanism for moving the intermediate rolls in roll axis directions; and

control means for changing during a rolling operation axial positions of the intermediate rolls according to a thickness distribution in a width direction of the material.

21. A reversible rolling facility for a strip comprising:

a pair of work rolls each having a roll outline shape at a vicinity to one ends of roll bodies thereof, the roll outline shape having a tapered portion decreasing in diameter toward the roll end, the tapered portions of the work rolls being arranged on opposite sides of the roll bodies with respect to roll axis directions;

a pair of intermediate rolls for supporting the pair of work rolls;

a pair of back-up rolls for supporting the pair of intermediate rolls;

a moving mechanism for moving the work rolls in the roll axis directions;

an axial position setting mechanism for setting axial positions of the work rolls at desired positions when a material with a constant width is being rolled,

a moving mechanism for moving the intermediate rolls in roll axis directions; and

control means for changing during a reversible rolling operation axial positions of the intermediate rolls according to a thickness distribution in a width direction of the material.